

A Note on Sluicing and Island Repair*

Franc Marušič and Rok Žaucer
University of Nova Gorica

Sluicing—TP ellipsis preceded by *wh*-movement—is widely assumed to fix various island violations (Ross 1967, Merchant 2001, Lasnik 2001, Fox and Lasnik 2003, etc.). This view, however, appears to have an obvious compatibility issue with standard approaches to islands. In Phase Theory, islands are claimed to be a consequence of the Phase Impenetrability Condition (PIC) (Chomsky 2000, 2001, Adger 2003, etc.). When a phase is completed and spelled out, everything inside it is inaccessible to further syntactic operations. Sluicing should thus not be able to fix island violations, since the structure needed as the input for the fixing process should not have been derived in the first place (cf. Müller 2011 or Richards 2011 for mechanisms that avoid this problem).

In view of this, one option is to hypothesize that islands are unrelated to phases and thus not a consequence of the PIC. Improper movement could be derived with the help of some other mechanism, such as Phase Extension (den Dikken 2007); sluicing would then only obscure traces of proper movement. But given that islands cannot be violated in the paraphrases, this solution needs some look-ahead (i.e., do this kind of movement only when you are going to sluice the TP).

Another option is to argue that islands simply cannot be violated and that—contrary to the received view—sluicing thus actually cannot repair islands either. For this to work, what sluicing involves should not be the

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deletion of the entire antecedent sentence, but rather the deletion of just some smaller structure, one where no islands were violated.

In this paper, we will present some data that pose problems for the standard understanding of sluicing and suggest that sluicing indeed does not involve the deletion of the entire antecedent sentence.

1 Multiple Sluicing

Just like Serbo-Croatian, Slovenian allows multiple *wh*-movement, as in (1), but does not allow multiple long-distance *wh*-movement, as in (2). On the other hand, multiple sluicing from an embedded clause is allowed, as shown in (3):¹

- (1) Koga je komu Janez predstavil?
 who_{ACC} AUX who_{DAT} Janez introduced
 ‘Who did Janez introduce to who?’
- (2) a. *Koga je komu Vid povedal Meti, da je Črt predstavil?
 who_{ACC} AUX who_{DAT} Vid told Meta that AUX Črt introduced
 b. *Komu je koga Vid povedal Meti, da je Črt predstavil?
 who_{DAT} AUX who_{ACC} Vid told Meta that AUX Črt introduced
- (3) a. Vid je rekel, da je Črt predstavil nekomu nekoga,
 Vid AUX said that AUX Črt introduce one_{DAT} one_{ACC},
 pa ne vem komu koga.
 but not know who_{DAT} who_{ACC}
 ‘Vid said that Črt introduced someone to someone, but I don’t know who to who.’
- b. ... who_{DAT} who_{ACC} [Vid said [that Črt introduced ___ ___]]

This difference between sluicing and regular questions can be explained by claiming that sluicing (or ellipsis in general) fixes improper-movement violations. Movement of the second *wh*-word violated some grammatical constraints (such violations were marked with * or #), but at the point of ellipsis, the stars/hashmarks got erased together with the TP.

The same mechanism or its variant is widely used in the analyses of island repair under sluicing (Ross 1967, Lasnik 2001, Merchant 2001,

¹ Unless marked otherwise, the language of examples is Slovenian. English translations may ignore grammaticality to mirror the original examples as closely as possible.

Lasnik and Fox 2003, etc.). For example, sluicing allows extraction of a *wh*-word from inside a relative clause, (4), even though extraction out of a relative clause is, of course, impossible in simple questions, (5).

- (4) a. Vid je razlagal o konju, ki je brnil nekoga,
 Vid aux explained about horse which aux kicked someone
 pa ne vem koga.
 but not know who
 ‘Vid was explaining about a horse that kicked someone, but I don’t know whom.’
- b. ... whom [~~Vid was explaining about a horse~~ {that kicked ____}]
- (5) *Koga je Peter razlagal o konju, ki je brnil?
 who AUX Peter explained about horse which aux kicked
 ‘Whom was Peter explaining about a horse that kicked?’

The type of data presented so far are well known and have been often used in linguistic theorizing. What has not surfaced in these discussions, however, are more complex data with more than one island violation.

If sluicing is an operation in which island violations are repaired, one would expect that violating one (as opposed to two) islands will make no difference. It turns out, however, that we *cannot* violate two islands in one sluicing. It is impossible, for example, to extract two *wh*-words from two different relative clauses, as in (6):

- (6) a. *Peter je dal konju, ki je nekoga brnil, podkev,
 Peter AUX gave horse which AUX someone kicked horseshoe
 ki jo je nekje kupil, ampak ne vem, koga kje.
 which it aux somewhere bought but not know who where
 ‘Peter gave the horse that kicked someone a horseshoe that he bought somewhere, but I don’t know who where.’
- b. ... whom where [~~Peter gave the horse~~ {that kicked ____}]
 a horseshoe {that he bought ____}]

2 An old observation

Attributing the observation to Takahashi (1994), Merchant (2001: 113, fn. 4) notes that multiple sluices tend to resist the separation by a clause boundary, though he provides no explanation for this fact. The same

observation with comparable examples is repeated in Lasnik (in press), who provides the Serbo-Croatian example in (7).

- (7) a. Neko misli da je Ivan nešto pojeo. (Serbo-Croatian)
 Someone thinks that is Ivan something ate
 ‘Someone thinks that Ivan ate something.’
- b. ?Pitam se ko šta.
 ask self who what
 ‘I wonder who what.’ (Lasnik, in press)
- c. ... who what { ___ ~~thinks~~ {that Ivan ate ___ } }

Lasnik reports that while 6 of his 7 informants find (7b) “quite good”, the seventh rejects it. Lasnik adds that these judgments replicate judgments for comparable *wh*-extraction, given in (8), so that the speaker who rejects (7b) also rejects (8), and those who accept (7b) also accept (8).²

- (8) Ko šta misli da je Petar pojeo? (Serbo-Croatian)
 who what thinks that is Petar ate
 ‘Who thinks that Petar ate what?’ (Lasnik, in press)

Such examples—both sluicing, (9), and regular *wh*-questions, (10)—are completely ungrammatical in Slovenian:

- (9) a. Nekdo misli, da je Janez nekaj pojedel.
 someone thinks that is Janez something ate
 ‘Someone thinks that Ivan ate something.’
- b. *Sprašujem se kdo kaj.
 ask self who what
 ‘I wonder who what.’
- c. ... who what { ___ ~~thinks~~ {that Ivan ate ___ } }
- (10) *Kdo kaj misli, da je Peter pojedel?
 who what thinks that is Peter ate
 ‘Who thinks that Peter ate what?’

Any version of simultaneous extraction of one *wh*-word from an embedded and another from the matrix clause is ungrammatical in

² One of our informants rejects (7b), but accepts (8).

Slovenian, as shown for a combination of matrix subject and embedded adjunct in (11), for matrix indirect object and embedded adjunct in (12), and for matrix indirect object and embedded subject in (13):

- (11) a.*Nekdo je omenil, da je Vid nekam šel,
 someone aux mentioned that aux Vid somewhere gone
 pa ne vem kdo kam.
 but not know who where
 ‘Someone mentioned that Vid went somewhere, but I don’t know who where.’
 b. ... who where { ~~___ mentioned [that Vid went ___]~~ }
 c.*Kdo je kam omenil, da je Vid šel?
 who aux where mentioned that is Vid went
 ‘Who mentioned that Peter went where?’
- (12) a.*Peter je nekemu povedal, da je Vid šel nekam,
 Peter aux someone told that aux Vid went somewhere
 pa ne vem komu kam.
 but not know who where
 ‘Peter told someone that Vid went somewhere, but I don’t know who where.’
 b. ... whom where { ~~Peter told ___ [that Vid went ___]~~ }
 c.*Komu je kam Peter povedal, da je Vid šel?
 whom is where Peter told that is Vid gone
 ‘Whom did Peter tell that Vid went where?’
- (13) a.*Peter je nekemu povedal, da je šel nekdo v Pariz,
 Peter aux someone told that aux gone someone to Paris
 pa ne vem komu kdo.
 but not know whom who
 ‘Peter told someone that Vid went somewhere, but I don’t know whom where.’
 b. ... whom who { ~~Peter told ___ [that ___ went to Paris]~~ }
 c.*Komu je kdo Peter povedal, da je šel v Pariz?
 whom aux who Peter told that is gone to Paris
 ‘Whom did Peter tell that who went to Paris?’

Whereas these cases involve no island violation, they must nonetheless involve improper movement given that such extraction is impossible in simple questions. And this improper movement is not fixed by sluicing.

Sluicing is fine with such cases only for those that accept such extraction also in simple questions, as in the Serbo-Croatian case above.

3 Back to islands

In (6) above we saw a case where extraction out of two *relative clause islands* was impossible. It is also impossible to *combine* a single island violation with another extraction even when the other extraction does not violate anything; here, too, we have a clause boundary between the two extraction sites.

- (14) a. *Nekdo je govoril o konju, ki je brcnil nekoga,
 someone aux talked about horse that aux kicked someone,
 ampak ne vem kdo koga.
 but not know who whom
 ‘Someone talked about a horse that kicked someone, but I don’t
 know who whom.’
 b. ... who whom { ~~___ talked about a horse~~ { ~~that kicked ___~~ }

3.1 Coordinate Structure Constraint

Sluicing also appears to fix Coordinate Structure Constraint (CSC) violations (cf. Ross 1969, Merchant 2011, Fox and Lasnik 2003), as shown in (15) and (16). The availability of extraction of a single conjunct is shown for both the second conjunct, (15), and the first conjunct, (16).

- (15) a. Peter je povabil Janeza in še nekoga, ampak ne vem koga.
 Peter aux invited Janez and also someone but not know who
 ‘Peter invited Janez and someone else, but I don’t know whom.’
 b. ... whom { ~~Peter invited Janez and ___~~ }
- (16) a. Peter je povabil nekoga in še Janeza, ampak ne vem koga.
 Peter aux invited some and also Janez but not know who
 ‘Peter invited someone and also Janez, but I don’t know whom.’
 b. ... whom { ~~Peter invited ___ and Janez~~ }

However, sluicing does not make it possible to *combine* a CSC violation with extraction from another island. This is shown in (17), where a CSC violation is combined with the extraction from a relative clause.

- (17) a. *Petru in še nekomu je kupil konja, ki je nekje
 Peter and also someone aux bought horse which aux somewhere
 brnil Vida, pa ne vem komu kje.
 kicked Vid but not know who where
 ‘He bought Peter and someone else a horse that kicked Vid
 somewhere, but I don’t know who where.’
 b. ... who where {~~He bought Peter and~~ ___ a horse {~~that kicked~~
 Vid ___ } }

In some sense, the ungrammaticality of (17) is expected given that extraction from a relative-clause island cannot be combined with another extraction in sluicing, as shown above. But a CSC violation cannot be combined even with another CSC violation. As shown in (18), extracting both conjuncts of a single coordination is only possible in the presence of a conjunction; but then we have not violated the CSC.

- (18) a. Peter je povabil enega prijatelja in eno punco, pa ne vem
 Peter aux invited one friend and one girl but not know
 katerega prijatelja *(in) katero punco.³
 which friend and which girl
 ‘Peter invited some friend and some girl, but I don’t know which
 friend and which girl.’
 b. ... which friend which girl {~~Peter invited~~ ___ and ___ }

3.2 Adjuncts

Wh-extraction is impossible also from adjuncts, as shown in (19).

- (19) *Koga je Peter kihnil, ravno ko je Marta poljubila?
 who aux Peter sneezed just when aux Marta kissed
 ‘Whom did Peter sneeze just when Marta kissed?’

³ Note that the unacceptability of (18) is not due to a violation of a distinctness condition (as in Richards 2010). In Slovenian, different gender features are enough to make *wh*-words count as distinct (see Mišmaš 2012).

- (i) Nekemu fantu se ni pomagalo neki punci, ampak ne vem kateremu kateri.
 some boy_{Dat} ref not-is helped some girl_{Dat} but not know which_{Dat,M} which_{Dat,F}
 ‘Some boy didn’t feel like helping some girl, but I don’t know which which.’

Once again, such extraction is fine under sluicing, (20).

- (20) a. Peter je kihnil, ravno ko je Marta poljubila nekoga,
 Peter aux sneezed just when aux Marta kissed someone
 ampak ne vem koga.
 but not know whom
 ‘Peter sneezed just when Marta kissed someone, but I don’t
 know whom.’
 b. ... whom [~~Peter sneezed [just when Marta kissed~~ ___]]

However, as soon as we combine *wh*-extraction from an adjunct with a matrix-clause extraction, the sentence becomes ungrammatical regardless of sluicing. It is also impossible to combine two such extractions from two different adjuncts.

- (21) a.*Nekdo je kihnil, ravno ko je Marta poljubila nekoga,
 someone aux sneezed just when aux Marta kissed someone
 pa ne vem kdo koga.
 but not know who who
 ‘Someone sneezed just when Marta kissed someone, but I don’t
 know who who.’
 b. ... who whom { ___ sneezed [~~just when Marta kissed~~ ___]]

3.3 PP complements of nouns

Slovenian does not allow *wh*-extraction of a PP embedded in a DP. Neither adjunct nor argument PPs can move out of a DP. (22) shows this for a PP complement (cf. ✓*teorija o skladijskih otokih* ‘theory of syntactic islands’). In sluicing, such an extraction is again possible, as shown in (23).

- (22) *O čem je Peter razlagal teorijo?
 about what aux Peter explained theory
 ‘What did Peter explain the theory about?’
 (23) Razlagal je teorijo o nečem, pa ne vem, o čem.
 explained aux theory about something but not know about what
 ‘He was explaining a theory about something, but I don’t know
 about what.’
 b. ... about what [~~Peter explained [the theory~~ ___]]

But as soon as we *combine* it with some other extraction, it becomes impossible regardless of sluicing. In (24) the extraction of a PP embedded in a DP is coupled with the extraction of the subject of the main clause; in (25), on the other hand, it is coupled with the extraction of another PP from inside another DP.

- (24) a.*Nekdo je razlagal teorijo o nečem,
 someone aux explained theory about something
 pa ne vem, kdo o čem.
 but not know who about what
 ‘Someone was explaining the theory about something, but I don’t know who about what.’
 b. ... who about what { ~~___ was explaining [the theory ___]~~ }
- (25) a.*Prijatelju iz neke odročne vasi je razlagal teorijo o
 friend_{Dat} from some remote village aux explained theory about
 nečem, pa ne vem iz katere (vasi) o čem.
 something but not know from which village about what
 ‘He explained the theory about something to a friend from some remote village, but I don’t know about what from which village.’
 b. ... about what from which village { ~~Vid explained [the theory ___] [to a friend ___]~~ }

What was shown above for PP complements is also true of DPs extracted out of a DP. When DPs are complements to a noun, they cannot be *wh*-extracted out of the DP in regular questions, but they can be in sluicing constructions. On the other hand, as soon as we combine such an extraction with another extraction, e.g., the extraction of the subject, the sentence becomes ungrammatical regardless of sluicing.

3.4 Left-branch extraction

Whereas Slovenian does not allow left-branch extraction (LBE) in ordinary questions, as shown in (26), constructed on the basis of an example from Merchant (2001), it does seem to allow it in sluicing, as shown in (27):

- (26) *Kako podroben si zahteval spisek?
 how detailed aux request list
 ‘How detailed did you request a list?’

- (27) a. Peter je zahteval podroben spisek, ampak ne vem,
 Peter aux requested detailed list but not know
 kako podroben.
 how detailed
 ‘Peter requested a detailed list, but I don’t know how detailed.’
 b. ... how detailed [~~Peter requested~~ { ___ list }]

But when we try to combine such an LBE with some other extraction, or when we attempt multiple LBEs, sluicing does not rescue the sentence. (28) shows that LBE cannot be combined with extraction of the main-clause subject, (29) shows that LBE cannot be combined with extraction of a DP from inside the same DP, and (30) shows the ungrammaticality of sluicing examples with multiple LBEs (cf. Grebenyova 2006):

- (28) a.*Nekdo je zahteval podroben seznam, ampak ne vem,
 someone aux requested detailed list but not know
 kdo kako podroben.
 who how detailed.
 ‘Someone requested a detailed list, but I don’t know who how detailed.’
 b. ... who how detailed { ___ requested } { ___ list }
- (29) a.*Vid je zahteval podroben seznam nečesa, ampak
 Vid aux requested detailed list something_{Gen} but
 ne vem, kako podroben česa.
 not know how detailed what_{Gen}
 ‘Vid requested a detailed list of something, but I don’t know how detailed of what.’
 b. ... how of what detailed [~~Vid requested~~ { ___ list } { ___ }]
- (30) a.*Precej otrokom je podaril precej čudne balone, ampak
 many children aux gave fairly strange balloons but
 ne vem koliko kako čudne.
 not know how-many how strange
 ‘He gave many children fairly weird balloons, but I don’t know how many how strange.’
 b. ... how many how strange [~~he gave~~ { ___ kids } { ___ balloons }]

3.5 Other islands

Other propositional islands (islands that correspond to a finite clause) are expected to work just like relative clauses. Complex NPs are two such cases where the effects observed above carry over. At this point we have nothing to say about derived positions, given that these islands are difficult if not impossible to test, since one cannot know which positions are derived in a sluicing context.

The last type of island we mention here are prepositional phrases. As already observed by Merchant (2001), sluicing does not fix P-stranding. According to Merchant (2001), P-stranding under sluicing is only allowed in languages that also allow P-stranding under *wh*-movement. Stjepanović (2008) provides further arguments that what looks like P-stranding under sluicing in Serbo-Croatian cannot be the result of sluicing alone. Since Slovenian behaves like Serbo-Croatian in this respect, we can safely conclude that apparent Slovenian P-stranding is also not a case of repair by sluicing. A further argument that P-stranding cannot be repaired by sluicing is given in (31). Whereas P-stranding is allowed to some degree in single sluice sentences, it is completely impossible with multiple sluicing.

- (31) a. *Pred neko hišo se je pogovarjal z nekom, ampak
 in front some house refl aux talk with someone but
 ne vem, katero hišo kom.
 not know which house who
 ‘He was talking to someone in front of some house, but I don’t
 know which house who.’
 b. ... which house who [~~He was talking to ___ in front of ___~~]

4 Towards an account

Section 3 presented several types of ungrammatical attempts of a single sluicing with various types of extraction combinations. It is not the case that sluicing can only fix one island violation at a time—which, if it could, would be an extremely difficult constraint to motivate. *From the same island*, sluicing can extract two *wh*-words, as in (32). It is also possible to extract a *wh*-word from an island inside another island, and we can also create a multiple sluicing example where both *wh*-words

would cross two islands. Examples like (33) are fine as long as both *wh*-words originate in the same island.

- (32) a. Kupil je konja, ki je nekje nekoga brnil,
bought aux horse which aux somewhere someone kicked
pa ne vem kje koga.
but not know where who
'He bought a horse that kicked someone somewhere, but I don't know who where.'
- b. ... who where [~~He bought a horse that kicked ____~~]
- (33) a. Razpredal je o govoricu, da je Vid kupil konja, ki
talked aux about rumor that aux Vid bought horse which
je enkrat nekoga brnil, ne vem pa kdaj koga.
aux once someone kicked not know but when who
'He talked about the rumor that Vid bought a horse that once kicked someone, but I don't know who when.'
- b. ... who when [~~he talked of the rumor [that Vid bought a horse that kicked ____~~]

It thus seems that multiple sluicing from islands is fine only when the two *wh*-words come from the same island. Even when we combine movement from an island with a movement that does not violate anything, sluicing is normally impossible. This suggests that sluicing actually does not fix improper-movement violations, and that island repair is an illusion. Rather, it seems that what is deleted/sluced is not the entire sentence but only the island from where the *wh*-word moved.

A similar proposal was put forward by Merchant (2001: 209), who claims that propositional islands (relative clauses, adjunct clauses, anything clausal) are not repaired by sluicing since they are actually never violated in the first place, (34); cf. Baker and Brame 1972.

- (34) NOT: ... who [~~Peter sold the horse [that kicked ____~~]]
RATHER: ... who [~~the horse kicked ____~~]

This proposal makes a clear prediction. If the sluced part of the sentence only consists of the embedded clause, then a proper name from the

matrix clause should not trigger a principle C violation. This prediction is borne out, as shown in (35).⁴

- (35) a. Peter je kupil konja, ki je včeraj brcnil enega
 Peter aux bought horse, that aux yesterday kicked one
 njegovega prijatelja.
 his friend
 ‘Peter bought a horse that kicked one of his friends yesterday.’
- b. Sprašujem se, katerega Petrovega prijatelja.
 ask refl which Peter’s friend
 ‘I wonder which friend of Peter’s.’

5 Recap

Sluicing should not be able to fix island violations, because the structure presumed to enter the repair process should not be derived in the first place. We observe a restriction on multiple sluicing: an island violation can only combine with the same kind of island violation from the same island. A theory in which sluicing fixes islands massively overgenerates, since it predicts every improper movement to be fixable. Following Merchant (2001) (cf. Abels 2011), we conclude that sluicing does not fix island violations as no island violations are ever derived.

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⁴ The lack of a Principle C violation is definitely not a consequence of sluicing (cf. island repair) given that principle C clearly holds in cases that only involve a single clause.

- (i) a. Peter je brcnil enega svojega prijatelja.
 Peter aux kicked one his friend
 ‘Peter kicked one of his friends.’
- b. Sprašujem se katerega *Petrovega / ✓svojega prijatelja.
 ask refl which Peter’s his friend
 ‘I wonder which friend of Peter’s / his.’

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franc.marusic@ung.si
rok.zaucer@ung.si